UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

OCT 07 2011

Mr. Lance R. LeFleur
Director
Alabama Department of Environmental Management
P. O. Box 301463
Montgomery, Alabama 36130-1463

Dear Mr. LeFleur,

The U. S. Environmental Protection Agency (EPA) has reviewed the revisions to the Alabama Department of Environmental Management (ADEM) Administrative Code Chapters 335-6-10 and 335-6-11, and hereby approves the revisions. The revisions were submitted to the EPA Region 4 Administrator by letter dated May 3, 2011, and were received on May 9, 2011. After completion of the State public participation processes, ADEM's Environmental Management Commission approved the revisions on December 10, 2010, and they became effective under State law on January 18, 2011. The revisions were certified by the State Attorney General on April 21, 2011, as duly adopted pursuant to state law.

The State's submittal includes revisions found at Rules 335-6-10-.09 Specific Water Quality Criteria, 335-6-10-.11 Water Quality Criteria Applicable to Specific Lakes, 335-6-10-.12 Implementation of the Antidegradation Policy, and 335-6-11-.02 Use Classifications. The revision to 335-6-10-.09(4) updates the reference to the *National Shellfish Sanitation Program (NSSP) Guide for the Control of Molluscan Shellfish: 2007 Revision*. Revisions to 335-6-10-.11 consist of numeric nutrient criteria in the form of chlorophyll *a* for eight lakes identified in ADEM's 2009 *Nutrient Criteria Implementation Plan*. These criteria are supported by data provided in ADEM's *Nutrient Criteria for Implementation Milestone Report for Reservoirs October 2009* and the *Nutrient Criteria for Alabama Reservoirs Summary of Data and Methodology Used in Establishing Criteria 2010*. Additional use designations for Swimming and Other Whole Body Water-Contact Sports and Public Water Supply were designated for stream segments as outlined in 335-6-11-.02(5), Choctawhatchee River Basin and 335-6-11-.02 (12), Tennessee River Basin.

The EPA also reviewed the changes to 335-6-10-.12 Implementation of the Antidegradation Policy and 335-6-11-.02 Use Classifications and determined that these revisions are either corrections or editorial changes and that these changes are not new or revised water quality standards for the purpose of the EPA's Clean Water Act (CWA) § 303(c) review. These editorial revisions include the following: (1) revision to add ADEM Forms 311, 312 and 313 at 335-1-1-.07 Departmental Forms, Instructions, and Procedures and remove publication of these forms at 335-6-10-.12(10), (2) revised lettering of river basins at 335-6-10-.11 due to additional lake criteria and (3) revision to correct the improper location of the Little River Lake in the Alabama River Basin at 335-6-11-.02(1).

Pursuant to the EPA's authority under CWA § 303(c) and the CWA implementing regulations at 40 CFR Part 131, the EPA assessed the State's revisions to Rules 335-6-10 and 335-6-11 in order to determine compliance with the CWA and Federal water quality standards regulations. The EPA has

determined that the revisions fulfill the requirements set forth by CWA §§ 101(a) and 303(c), and 40 CFR Part 131. These new and revised standards are applicable for all CWA purposes. A comprehensive summary of the EPA's analysis of the revised water quality standards rules is enclosed.

We would like to commend you and your staff for your continued efforts to protect and enhance the waters of the State of Alabama. If you have questions or comments, or would like to discuss anything referenced in this letter, please contact me at 404-562-9345 or have a member of your staff contact Lydia Mayo at 404-562-9247.

Sincerely,

for James D. Giattina
Director
Water Protection Division

Enclosure

cc: Lynn Sisk, ADEM

United States Environmental Protection Agency Determination
Under Section 303(c) of the Clean Water Act
Review of Alabama Department of Environmental Management
Administrative Code Chapter 335-6-10 and 335-6-11

The following is the U. S. Environmental Protection Agency's (EPA) analysis of the revisions to the Alabama Department of Environmental Management (ADEM) Administrative Code Chapters 335-6-10 and 335-6-11. The revisions were submitted on May 3, 2011, and received by the EPA on May 9, 2011. After completion of the State's public participation process ADEM's Environmental Management Commission approved the revisions on December 10, 2010, and they became effective January 18, 2011. The revisions were certified on April 21, 2011, by the State Attorney General as duly adopted pursuant to state law.

The State's submittal includes revisions found at Rules 335-6-10-.09 Specific Water Quality Criteria, 335-6-10-.11 Water Quality Criteria Applicable to Specific Lakes, 335-6-10-.12 Implementation of the Antidegradation Policy, and 335-6-11-.02 Use Classifications. The determination is divided into two portions. The first summarizes the EPA's review of revisions that are considered new or revised rules and are approved by the EPA. The second portion summarizes revisions to rules that were determined to not be new or revised water quality standards based on the EPA's Clean Water Act (CWA) § 303(c) review.

Revisions to ADEM's Rules Considered to be Changes to Water Quality Standards

335-6-10-.09 Specific Water Quality Criteria

ADEM updated the reference in paragraph (4) to *National Shellfish Sanitation Program (NSSP) Guide for the Control of Molluscan Shellfish: 2007 Revision* from the previous referenced *National Shellfish Sanitation Program Model Ordinance, 1999, Chapter IV.* This guidance is published by the Interstate Shellfish Sanitation Commission (ISSC) for uniform state application of the National Shellfish Sanitation Program. The guidance is supported by the EPA and the EPA is a member of the ISSC.

335-6-10-.11 Water Quality Criteria Applicable to Specific Lakes

ADEM adopted the following growing season mean chlorophyll *a* criteria for the following lakes/reservoirs:

Lake/Reservoir	**Basin**	**Chlorophyll a growing season mean Criteria**
Neely Henry: those waters impounded by Neely Henry Dam on the Coosa River. The lake has a surface area of 11,235 acres at full pool.	Coosa 335-6-10-.11(2)(d)	Chlorophyll *a*: the mean of photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 18 µg/l, as measured at the deepest point, main river channel, dam forebay; or 18 µg/l, as measured at the deepest point, main river channel, immediately upstream of Alabama Highway 77 bridge.

Logan Martin: those waters impounded by Logan Martin Dam on the Coosa River. The lake has a surface area of 15,263 acres at full pool.	Coosa 335-6-10-.11(2)(d)	Chlorophyll *a*: the mean of photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 17 µg/l, as measured at the deepest point, main river channel, dam forebay; or 17 µg/l, as measured at the deepest point, main river channel, approximately 1.5 miles downstream of Alabama Highway 34 bridge.
Lay: those waters impounded by Lay Dam on the Coosa River. The lake has a surface area of 12,000 acres at full pool.	Coosa 335-6-10-.11(2)(d)	Chlorophyll *a*: the mean of photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 17 µg/l, as measured at the deepest point, main river channel, dam forebay; or 17 µg/l, as measured at the deepest point, main river channel, immediately downstream of Peckerwood Creek/Coosa River confluence.
Mitchell: those waters impounded by Mitchell Dam on the Coosa River. The lake has a surface area of 5,850 acres at full pool.	Coosa 335-6-10-.11(2)(d)	Chlorophyll *a*: the mean of photic-zone composite Chlorophyll *a* samples collected monthly April through October shall not exceed 14 µg/l, as measured at the deepest point, main river channel, dam forebay; or 16 µg/l, as measured at the deepest point, main river channel, downstream of Foshee Islands.
Jordan: those waters impounded by Jordan Dam on the Coosa River. The lake has a surface area of 6,800 acres at full pool.	Coosa 335-6-10-.11(2)(d)	Chlorophyll *a*: the mean of photic-zone composite Chlorophyll *a* samples collected monthly April through October shall not exceed 14 µg/l, as measured at the deepest point, main river channel, dam forebay.

Purdy: those waters impounded by Lake Purdy Dam at the headwaters of the Cahaba River. The lake has a surface area of 1,050 acres at full pool.	Cahaba 335-6-10-.11(2)(b)	Chlorophyll *a*: the mean of photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 16 µg/l, as measured at the deepest point, main river channel, dam forebay; or 18 µg/l, as measured at the deepest point, main river channel, immediately upstream of the Irondale Bridge.
Big Creek (J. B. Converse Lake): those waters impounded on Big Creek. The lake is a tributary-storage reservoir and has a surface area of 3,600 acres at full pool.	Escatawpa 335-6-10-.11(2)(e)	Chlorophyll *a*: the mean of photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 11 µg/l, as measured at the deepest point, main river channel, dam forebay.
Aliceville: those waters impounded by Tom Bevill Dam on the Tombigbee River. The lake has a surface area of 8,300 acres at full pool.	Tombigbee 335-6-10-.11(2)(j)	Chlorophyll *a*: the mean of photic-zone composite chlorophyll *a* samples collected monthly April through October shall not exceed 18 µg/l, as measured at the deepest point, main river channel, dam forebay.

The chlorophyll *a* criteria summarized in the above table were submitted in ADEM's *Nutrient Criteria for Implementation Milestone Report for Reservoirs October 2009* and *Nutrient Criteria for Alabama Reservoirs Summary of Data and Methodology Used in Establishing Criteria 2010.* ADEM utilized approximately ten years of data which correlated nutrient levels and reservoir conditions that support the designated beneficial uses. ADEM also consulted with an Auburn University limnologist on reservoir hydrology dynamics to characterize each reservoir. Where reservoirs were supporting designated uses, ADEM adopted target chlorophyll *a* concentrations at or below the ambient lake concentrations. In those cases where a reservoir was not fully supporting its designated uses, the chlorophyll *a* levels were determined using water quality data and watershed modeling to impose nutrient reductions to achieve chlorophyll *a* levels associated with full use support conditions. In addition, the chlorophyll *a* criteria were developed to be protective of downstream reservoir and river uses by taking into account nutrient attenuation and transport. These chlorophyll *a* criteria are consistent with the CWA § 303, 40 CFR Part 131 and the EPA's National Nutrient Strategy.

335-6-11-.02 Use Classifications (5) The Choctawhatchee River Basin

ADEM amended the Choctawhatchee River from one continuous river segment into three individual river segments in order to revise the upper and lower portions of the river to include the Swimming and Other Whole Body Water-Contact Sports use. The State revised the West Fork of the Choctawhatchee River from one continuous river segment into three individual river segments in order to revise the upper

and lower portions of the river to include the Swimming and Other Whole Body Water-Contact Sports use. The State combined the lower and upper portions of East Fork of the Choctawhatchee River into one segment. The lower segment of East Fork of the Choctawhatchee River has been designated to include the Swimming and Other Whole Body Water-Contact Sports use. The segments of rivers where the Swimming and Other Whole Body Water-Contact Sports use has been added include the following:

(1) Choctawhatchee River from Alabama-Florida state line to Alabama Highway 12,
(2) Choctawhatchee River from Brooking Mill Creek to the source of the Choctawhatchee River,
(3) West Fork of the Choctawhatchee River from Choctawhatchee River to Alabama Highway 27,
(4) West Fork of the Choctawhatchee River from Judy Creek to the source of the West Fork of the Choctawhatchee River, and
(5) East Fork of the Choctawhatchee River from Choctawhatchee River to Blackwood Creek.

The new applicable criteria can be found at 335-6-10-.09 (3) Swimming and Other Whole Body Water-Contact Sports which is outlined in Attachment 1. ADEM's revisions to add year round recreational uses to these segments are consistent with the CWA and 40 CFR Part 131 requirements for review of the designated uses of waters and to evaluate and protect existing uses. The portion of the Choctawhatchee River from Alabama Highway 12 to Brooking Mill Creek and the portion of the West Fork of the Choctawhatchee River from Alabama Highway 27 to Judy Creek will retain the designated Fish and Wildlife use. The State's Fish and Wildlife use designation protects seasonal primary recreational uses and is consistent with the CWA § 101(a)(2) goals.

335-6-11-.02 Use Classifications (12) The Tennessee River Basin

ADEM designated Tuscumbia Spring as a source of water supply for drinking or food-processing purposes in addition to the Fish and Wildlife Use. The associated criteria can be found at rule 335-6-10-.09 Specific Water Quality Criteria (2) Public Water Supply. This revision is consistent with the CWA and 40 CFR Part 131 requirements for review of the designated use of waters and to evaluate and protect existing uses. In accordance with the CWA regulation, ADEM has revised its water standards to reflect the existing uses of the spring.

Endangered Species Act

Section 7(a)(2) of the Endangered Species Act requires federal agencies, in consultation with the Fish and Wildlife Service and the National Marine Fisheries Service, to ensure that their actions are not likely to jeopardize the continued existence of federally listed species or result in the destruction or adverse modification of designated critical habitat of such species. EPA conducted a biological evaluation of the revisions to Alabama's water quality standards. The EPA concluded that approval of the revisions either will have no effect on listed species or is not otherwise subject to ESA consultation.

Revisions to ADEM's Rules Not Considered Changes to Water Quality Standards

335-6-10-.11 Water Quality Criteria Applicable to Specific Lakes

ADEM updated the succession of river basins from Chapter 335-6-10-.11 section (2) sub-sections (c) through (k) due to the addition of chlorophyll *a* criteria in sub-section (b) Lake Purdy in the Cahaba River Basin. This addition then required the re-lettering of the subsequent River Basins (c) through (k).

The EPA does not consider this revision to rule lettering a change to water quality standards for the purposes of its CWA § 303(c) review because no water quality standards were affected by these editorial changes.

335-6-10-.12 Implementation of the Antidegradation Policy

The State removed ADEM Forms 311, 312 and 313 at 335-6-10-.12(10). ADEM has kept the reference to each form at 335-6-10-.12(9)1(i) and (ii) and added a note to identify that each form will be listed at 335-1-1-.07 Departmental Forms, Instructions, and Procedures and will also be included for download on the State's website under Forms at www.ADEM.Alabama.gov. It is unnecessary for these forms to be identified and codified in all three rules.

The EPA does not consider this administrative rule revision a change to water quality standards for the purposes of its CWA § 303(c) review because no water quality standards were affected by these editorial changes.

335-6-11-.02 Use Classifications (1) The Alabama River Basin

ADEM removed the previous incorrect location of the Little River Lake in the Valley Creek State Park and included the correct location in the Little River State Forest.

The EPA does not consider correcting a typographical or administrative error as a new or revised water quality standard for the purposes of its CWA § 303(c) review.

Summary

Based on the above, the new and revised water quality standards identified are consistent with the CWA and 40 CFR Part 131 and the EPA is approving these revisions to ADEM's water quality standards.

Attachment 1

(3) SWIMMING AND OTHER WHOLE BODY WATER-CONTACT SPORTS

(a) Best usage of waters: swimming and other whole body water contact sports.□

(b) Conditions related to best usage: the waters, under proper sanitary supervision by the controlling health authorities, will meet accepted standards of water quality for outdoor swimming places and will be considered satisfactory for swimming and other whole body water-contact sports. The quality of waters will also be suitable for the propagation of fish, wildlife and aquatic life. The quality of salt waters and estuarine waters to which this classification is assigned will be suitable for the propagation and harvesting of shrimp and crabs.

(c) Specific criteria:

1. Sewage, industrial wastes, or other wastes: none which are not effectively treated or controlled in accordance with rule 335-6-10-.08.

2. pH: sewage, industrial wastes or other wastes shall not cause the pH to deviate more than one unit from the normal or natural pH, nor be less than 6.0, nor greater than 8.5. For estuarine waters and salt waters to which this classification is assigned, wastes as described herein shall not cause the pH to deviate more than one unit from the normal or natural pH, nor be less than 6.5, nor greater than 8.5.

3. Temperature:

(i) The maximum temperature in streams, lakes, and reservoirs, other than those in river basins listed in subparagraph (ii) hereof, shall not exceed 90 °F.
(ii) The maximum temperature in streams, lakes, and reservoirs in the Tennessee and Cahaba River Basins, and for that portion of the Tallapoosa River Basin from the tailrace of Thurlow Dam at Tallassee downstream to the junction of the Coosa and Tallapoosa Rivers which has been designated by the Alabama Department of Conservation and Natural Resources as supporting smallmouth bass, sauger, or walleye, shall not exceed 86°F.
(iii) The maximum in-stream temperature rise above ambient water temperature due to the addition of artificial heat by a discharger shall not exceed 5 °F in streams, lakes, and reservoirs in non-coastal and non-estuarine areas.
(iv) The maximum in-stream temperature rise above ambient water temperature due to the addition of artificial heat by a discharger shall not exceed 4 °F in coastal or estuarine waters during the period October through May, nor shall the rise exceed 1.5 °F during the period June through September.
(v) In lakes and reservoirs there shall be no withdrawal from, nor discharge of heated waters to, the hypolimnion unless it can be shown that such discharge or withdrawal will be beneficial to water quality.
(vi) In all waters the normal daily and seasonal temperature variations that were present before the addition of artificial heat shall be maintained, and there shall be no thermal block to the migration of aquatic organisms.
(vii) Thermal permit limitations in NPDES permits may be less stringent than those required by subparagraphs (i) - (iv) hereof when a showing by the discharger has been made pursuant to Section 316 of the Federal Water Pollution

Control Act (FWPCA), 33 U.S.C. § 1251 et seq. or pursuant to a study of an equal or more stringent nature required by the State of Alabama authorized by Title 22, Section 22-22-9(c), Code of Alabama, 1975, that such limitations will assure the protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife, in and on the body of water to which the discharge is made. Any such demonstration shall take into account the interaction of the thermal discharge component with other pollutants discharged.

4. Dissolved oxygen:

(i) For a diversified warm water biota, including game fish, daily dissolved oxygen concentrations shall not be less than 5 mg/l at all times; except under extreme conditions due to natural causes, it may range between 5 mg/l and 4 mg/l, provided that the water quality is favorable in all other parameters. The normal seasonal and daily fluctuations shall be maintained above these levels. In no event shall the dissolved oxygen level be less than 4 mg/l due to discharges from existing hydroelectric generation impoundments. All new hydroelectric generation impoundments, including addition of new hydroelectric generation units to existing impoundments, shall be designed so that the discharge will contain at least 5 mg/l dissolved oxygen where practicable and technologically possible. The Environmental Protection Agency, in cooperation with the State of Alabama and parties responsible for impoundments, shall develop a program to improve the design of existing facilities.
(ii) In coastal waters, surface dissolved oxygen concentrations shall not be less than 5 mg/l, except where natural phenomena cause the value to be depressed.
(iii) In estuaries and tidal tributaries, dissolved oxygen concentrations shall not be less than 5 mg/l, except in dystrophic waters or where natural conditions cause the value to be depressed.
(iv) In the application of dissolved oxygen criteria referred to above, dissolved oxygen shall be measured at a depth of 5 feet in waters 10 feet or greater in depth; and for those waters less than 10 feet in depth, dissolved oxygen criteria will be applied at mid-depth.

5. Toxic substances; color producing substances; odor producing substances; or other deleterious substances attributable to sewage, industrial wastes, or other wastes: only such amounts, whether alone or in combination with other substances or wastes, as will not render the water unsafe or unsuitable for swimming and water-contact sports; exhibit acute toxicity or chronic toxicity, as demonstrated by effluent toxicity testing or by application of numeric criteria given in rule 335-6-10-.07, to fish, wildlife, and aquatic life or, where applicable, shrimp and crabs; impair the palatability of fish, or where applicable, shrimp and crabs; impair the waters for any other usage established for this classification or unreasonably affect the aesthetic value of waters for any use under this classification.

6. Bacteria:

(i) Waters in the immediate vicinity of discharges of sewage or other wastes likely to contain bacteria harmful to humans, regardless of the degree oftreatment afforded these wastes□, are not acceptable for swimming or other whole body water-contact sports.

(ii) In all other areas, the bacterial quality of water is acceptable when a sanitary survey by the controlling health authorities reveals no source of dangerous pollution and when the geometric mean E. coli organism density does not exceed 126 colonies/100 ml nor exceed a maximum of 235 colonies/100 ml in any sample in non-coastal waters. In coastal waters, bacteria of the enterococci group shall not exceed a geometric mean of 35 colonies/100 ml nor exceed a maximum of 104 colonies/100 ml in any sample. The geometric mean shall be calculated from no less than five samples collected at a given station over a 30-day period at intervals not less than 24 hours. When the geometric mean bacterial organism density exceeds these levels, the bacterial water quality shall be considered acceptable only if a second detailed sanitary survey and evaluation discloses no significant public health risk in the use of the waters.

(iii) The policy of nondegradation of high quality waters shall be stringently applied to bacterial quality of recreational waters.

7. Radioactivity: the concentrations of radioactive materials present shall not exceed the requirement of the State Department of Public Health.

8. Turbidity: there shall be no turbidity of other than natural origin that will cause substantial visible contrast with the natural appearance of waters or interfere with any beneficial uses which they serve. Furthermore, in no case shall turbidity exceed 50 Nephelometric units above background. Background will be interpreted as the natural condition of the receiving waters, without the influence of man-made or man-induced causes. Turbidity levels caused by natural runoff will be included in establishing background levels.

□ NOTE: In assigning this classification to waters intended for swimming and water-contact sports, the Commission will take into consideration the relative proximity of discharges of wastes and will recognize the potential hazards involved in locating swimming areas close to waste discharges. The Commission will not assign this classification to waters, the bacterial quality of which is dependent upon adequate disinfection of waste and where the interruption of such treatment would render the water unsafe for bathing.